

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
17 February 2005 (17.02.2005)

PCT

(10) International Publication Number
WO 2005/014674 A3

- (51) International Patent Classification⁷: **C08F 210/06, 4/642**
- (21) International Application Number: **PCT/EP2004/008710**
- (22) International Filing Date: **3 August 2004 (03.08.2004)**
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data:
03077434.3 4 August 2003 (04.08.2003) EP
04075990.4 1 April 2004 (01.04.2004) EP
- (71) Applicant (*for all designated States except US*): **DSM IP ASSETS B.V. [NL/NL]; Het Overloon 1, NL-6411 TE Heerlen (NL).**
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **IJPEIJ, Edwin, Gerard [NL/NL]; Vrangendaal 153, NL-6136 JN Sittard (NL). ARTS, Henricus, Johannes [NL/DE]; Montjöiestraat 4, NL-6151 JD Munstergeleen (NL). VAN DOREMAELE, Gerardus, Henricus, Josephus [NL/NL]; Op de Hoef 6, NL-6132 HN Sittard (NL). BELJER, Felix, Hugo [NL/NL]; Darwinstraat 14, NL-6132 GW Sittard (NL). VAN DER BURGT, Francis [NL/NL]; Robert Schumanstraat 3, NL-6049 HL Herten (NL). ZUIDEVELD, Martin, Alexander [NL/NL]; Erasmusdomein 102a, NL-6229 GD Maastricht (NL).**
- (74) Agent: **MOOLJ, Johannes, Jacobus; DSM Intellectual Property, P.O. Box 9, NL-6160 MA Geleen (NL).**
- (81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*
- (88) Date of publication of the international search report: **17 November 2005**

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/014674 A3

(54) Title: **PROCESS FOR THE PREPARATION OF A POLYOLEFIN**

(57) Abstract: The invention relates to a process for the polymerization of at least one aliphatic C₂₋₂₀ or aromatic C₄₋₂₀ hydrocarbyl mono- or multiolefin in the presence of a catalyst and an aluminum comprising co-catalyst, wherein the catalyst comprises a composition of a metal-organic reagent, a spectator ligand and optionally at least one equivalent of a hydrocarbylating agent. The invention further relates to a polymer obtainable by the process of the invention.